



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 838,730	04 19 2001	Tawfik R. Arabi	884.410US1	9492

7590

08 13 2003

Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

EXAMINER

KOBERT, RUSSELL MARC

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 08 13 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,730

Applicant(s)

ARABI ET AL.

Examiner

Russell M Kobert

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-9 and 31-47 is/are pending in the application.
- 4a) Of the above claim(s) 31-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 6-9 is/are allowed.
- 6) ☐ Claim(s) 1-5 and 43-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. Applicant's arguments filed June 2, 2003 have been fully considered but they are not persuasive. Applicants argue that during the time interval T_2 (leakage measurement interval) the device is not floating. The examiner contends there exists at least one interval (noted as T_{f2} in Figure 4 taken from the Consiglio Patent No. 5,519,327) in-part or in-whole within Leakage interval T_2 wherein the device under test is floating. It is further noted that the device is floating when all the switches (S_1 , S_2 and S_3 are OPEN). Moreover, the invention as described in claims 1 and 43 do not limit the duration and position in time where a floating interval exists between the driving interval and the determining interval. Referring once again to Figure 4 below, there exist at least two

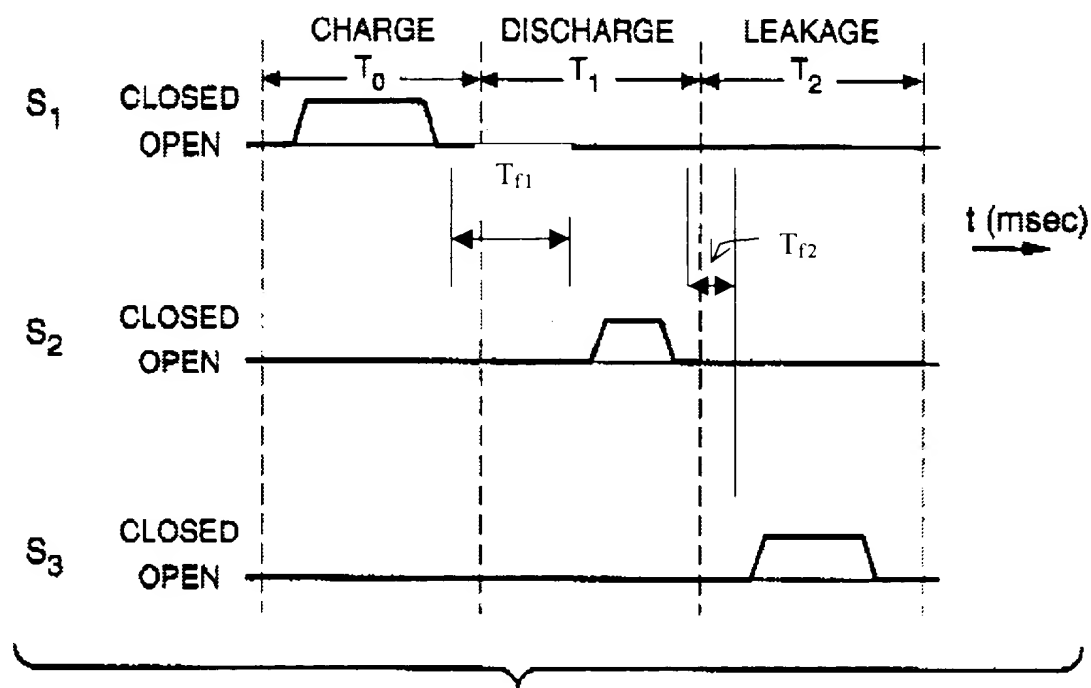


FIG. 4

time intervals (noted at T_{f1} and T_{f2}) between the non-floating conditions (S_1 CLOSED and S_3 CLOSED) where the device is floating. The location of these two time intervals meet the claimed limitation of floating the terminal for a predetermined time as recited in claims 1 and 43.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 43-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Consiglio (5519327).

Consiglio anticipates a method of testing an integrated circuit (IC), the method comprising: driving a terminal on the IC to a state (col 6, ln 64 – col 7, ln 3); stopping the driving of the terminal (col 6, ln 4-9); floating the terminal for a predetermined time (T_2); and determining a state of the terminal after the predetermined time (col 7, ln 59 – col 8, ln 4); as recited in claim 1.

As to claim 2, determining quality of the IC based on the state of the terminal after the predetermined time (considered inherent to Consiglio; see Abstract). Moreover the limitations of claims 3-5 are considered the inherent method of use of Consiglio.

Consiglio anticipates a machine-readable medium having instructions stored thereon to cause a tester to perform a method, the method comprising: driving a

terminal on the IC to a state (col 6, ln 64 – col 7, ln 3); stopping the driving of the terminal (col 6, ln 4-9); floating the terminal for a predetermined time (T_2); and determining a state of the terminal after the predetermined time (col 7, ln 59 – col 8, ln 4); as recited in claim 43.

As to claims 44-47, the limitations are considered the inherent method of use of Consiglio.

4. Claims 6-9, as previously indicated to be allowable in the prior Office Action, remain allowable. The reason is restated for Applicants' convenience:

A method of testing comprising: charging a pin on an integrated circuit (IC) until it reaches a known state; stopping the charging of the pin; floating the pin for a predetermined time; sampling a state of the pin after the predetermined time; and determining a test result of the pin based on the state of the pin after the predetermined time, wherein the method is performed with Boundary Scan as recited in claim 6 has not been found.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2829

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (703) 308-5222.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Russell M. Kobert
Patent Examiner
Group Art Unit 2829
August 4, 2003

